

REMARKS

Claims 2, 4, 6, 8, 10, 12, 14, 16, 20, 22, 24, 26, 28, and 30 stand rejected under 35 U.S.C. 102(b) as being anticipated by Kawaguchi et al. (U.S. Patent No. 6,283,602). Applicants traverse the rejection because Kawaguchi fails to disclose (or suggest), among other things, a lighting apparatus that includes planes (*i.e.*, reflection surfaces) of the plural light reflection portions being respectfully tilted at a plurality of different angles according to the positions of the light reflection portions.

Kawaguchi discloses a lighting device having a point-source light 18 for emitting light, a linear light guide 19 with a plurality of linear prisms 22 formed thereon, and a planar light guide 16 for causing the light entering from the linear light guide 19 to exit in plane. In Kawaguchi, the surfaces of the plurality of the prisms 22 are titled at a uniform angle relative to the light source. The lighting device of Kawaguchi corresponds to a lighting apparatus 110, which is described in the background of the present invention (see also FIGs. 29-30B of Applicants' application). The present application discloses that a light intensity distribution of the lighting apparatus 110 is not uniform (see FIG. 32 of Applicants' application).

In contrast, the present invention has surfaces or planes of a plurality of light reflection portions 20a, 20b that are respectively titled at a plurality of different angles relative to the light source according to the positions of the light reflection portions 20a, 20b. Accordingly, light exits substantially vertically ($\theta_{out}(n) = 0$ degrees) to the longitudinal direction of the linear photoconductor 14 (see FIG. 7 of Applicants' application).

In the present invention, since the planes of the plural light reflection portions are respectively tilted at the plural different angles according to the positions of the light reflection portions causing light to exit substantially vertically to the longitudinal direction of the linear photoconductor, it is possible to obtain a uniform light intensity distribution at a single viewpoint. Therefore, it is possible to obtain improved display characteristics, as compared to Kawaguchi.

That is, Kawaguchi neither discloses nor suggests different angular titling of the reflection surfaces relative to the light source. In Kawaguchi, since the surfaces of the plural prisms 22 are tilted at a uniform angle, light from the light source exits in various directions (see FIGs. 30A-30B of the present application). Therefore, in Kawaguchi, a light intensity distribution at a single viewpoint is not uniform, like in the present invention (see FIG. 32 of the present application). Accordingly, it is not possible to obtain improved display characteristics. For these reasons, withdrawal of the §102 rejection is respectfully requested.

Claims 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, and 29 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Kawaguchi, in view of Epstein (U.S. Patent No. 5,894,539). Applicants traverse the rejection because the cited references fail to disclose or suggest a lighting apparatus that has light emitted from a planar photoconductor and is converged on a viewpoint.

The present invention has the planes of the plural light reflection portions 20a, 20b of the linear photoconductor 14 tilted at a plurality of different angles. Tilting varies

according to the positions of the light reflection portions 20a, 20b so that the light emitted from the planar photoconductor 16 is converged on a single viewpoint (see FIGs. 2A to 3 of Applicants' application).

In Kawaguchi, the surfaces of the plurality of the prisms 22 are tilted at a uniform angle. As described above, the lighting device of Kawaguchi is similar to the lighting apparatus 110, which is described in the present application in the background of the invention (see FIGs. 29-30B of Applicants' application). As taught by Applicants, a light intensity distribution of the prior art lighting apparatus 110 is not uniform. Moreover, the light emitted from the planar light guide 16 is not converged on a single viewpoint.

Epstein merely discloses a viewer 25. Light rays 26 reflected by a reflecting film 16 proceed toward the viewer 25 at angles ranging from 0 to ± 30 degrees to the normal of the display panel 12. In Epstein, the light reflected by the reflection film 16 is not converged on the viewer 25. That is, Epstein does not teach or suggest convergence of light emitted from a planar light guide.

In the present invention, since the planes of the plural light reflection portions are respectively tilted at a plural of different angles according to the positions of the light reflection portions, the light emitted from the planar photoconductor is converged on the viewpoint. Therefore, it is possible to obtain a uniform light intensity distribution at the viewpoint. Consequently, it is possible to obtain good display characteristics.

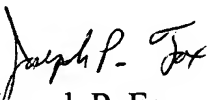
Since the cited references fail to disclose or suggest the convergence of the light source to a single viewpoint, withdrawal of the §103 rejection is respectfully requested.

For all of the foregoing reasons, Applicants submit that this Application is in condition for allowance, which is respectfully requested. The Examiner is invited to contact the undersigned attorney if an interview would expedite prosecution.

For the foregoing reasons, applicants believe that this case is in condition for allowance, which is respectfully requested. The examiner should call applicants' attorney if an interview would expedite prosecution.

Respectfully submitted,

GREER, BURNS & CRAIN, LTD.

By 
Joseph P. Fox
Registration No. 41,760

August 3, 2004

300 South Wacker Drive
Suite 2500
Chicago, Illinois 60606
Telephone: 312.360.0080
Facsimile: 312.360.9315
Customer No. 24978